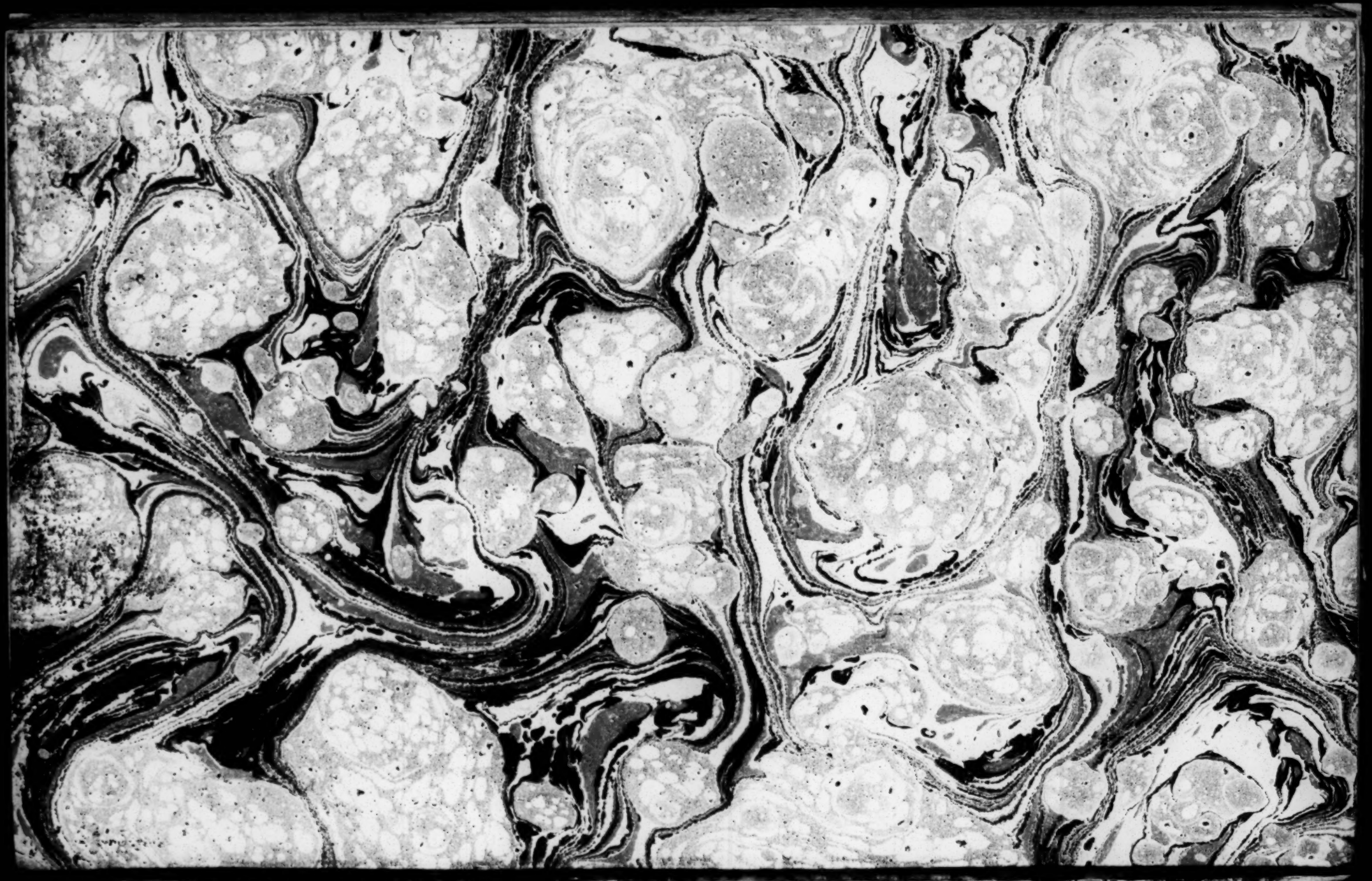
E187 (Almanacs)



From the Fund
Bequeathed to the
Massachusells Historical Society
BY
James Savage.

Received April, 1893



GOODSPEED, BOSTON.

E187

ISSUED BY GAYLORDBROS. LYNDON, N.Y.

MDCLXXXI.

AN ALMANACK OF

Cœlestial Motions for the Year of the *Christian Epocha*,

1681.

Being in our Account second after *Leap-year*: And from the Creation,

5630.

The Vulgar Notes.

Golden Numb.	10	Epact	20.
Cycle of the Sun.	10	Rom. Indict.	4.
Dominic. Let.	B.	Num. Direct.	13.

Calculated for the Meridian of Boston *in* New-England, *where the* Artick Pole *is elevated* 42 Degrees & 30 Minutes.

By *John Foster*, Astrophil.

Eph. 5. 16 *Redeem the time, because the dayes are evil.*

BOSTON: Printed by *J. F.* for *Samuel Phillips* in the west end of the *Exchange*. 1681.

ಸಾಲಿನ ಕೊನೆಯಲ್ಲಿ

ಬರೆಯುವಾಗ ಕೆಲವು ಸಲ ಪದಗಳನ್ನು ಪೂರ್ತಿ ಬರೆಯಲು ಸಾಧ್ಯವಾಗದೆ
ಹೋಗಬಹುದು. ಆಗ ಅವುಗಳನ್ನು ಹೇಗೆ ಮುರಿಯಬೇಕು ಎಂಬುದನ್ನು
ತಿಳಿಯಬೇಕು.

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Samuel Sewall His Book

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Samuel Sewall

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ECLIPSES in 1681.

IN the Revolution of this Year will happen five Eclipſes of the great Luminaryes, three whereof may be ſeen in *New-England*, if the weather permit.

The firſt viſible is of the Moon. *Auguſt* 18.
Beginning 56 *min.* paſt 8 night.
Continuing 3 *h.* 24. *min.*
Ending 20 *min.* paſt 12. night.
Digits Eclipſed 11 *fere.*

The ſecond is of the Sun, *Jan.* 28.
Beginning 2 *min.* paſt 10 beforenoon.
Continuing 2 *h.* 6. *min.*
Ending 8 *min.* paſt 12 at Noon.
Digits eclipſed 2. 17.

The third viſible is of the Moon *February* 11.
Beginning 29 *min.* paſt 4 afternoon.
Beginning of total darkneſs 28. *m.* paſt 5.
End of total darkneſs 8 *min.* paſt 7.
End of the Eclipſe 7 *min.* paſt 8. night.
Digits eclipſed 20. 15.

The other two Eclipſes are of the Sun on the 9*th.* of *March* and 1*ſt.* of *September*, neither of them viſible to us in *N-E.* and therefore needleſs here to be minded.

The

Directions for the Use of the following

EPHEMERIS.

IN the Pages next following you have after the Aſpects of the Sun and Moon) each Moneth preſenting it ſelf in ſeven Columns :-

In the firſt Column you have the Day of the Moneth.

The ſecond contains the day of the Week anſwerable to the day of the Moneth.

In the third you may find ſome of the principal Aſpects of the Planets their places; Courts, Artilleryes, with ſome memorable Occurrences that have lately hapned in *New-England*.

The fourth Column ſhews the Suns place in degrees and minutes.

The fifth declares the degree of the Ecliptick which the Moon poſſeſſeth.

The ſixth Column holds the time of the Suns Riſing and ſetting in three Rows of figures, the firſt ſignifying the hour of the Suns riſing, the third ſhews the hour of its ſetting, the middle Row is the number of minutes that the Sun riſes after the hour foregoing, and the minutes that it ſets before the hour following. *e.g. March* 21. the Sun riſeth 43 *min.* after five, & ſets 43 *min.* before ſeven.

The ſeventh Column gives the time of the night when the Pointers (two ſtars by ſome called the *Guards of the great Bear*, and ſo termed in our laſt years Almanack) come to be directly over or under the Pole.

March hath 31 Dayes.

Last quar. 2 day 8 min. past 4 morning.
New moon 9 day 6 min. past 8 night,
First quar. 16 day 10 min. past 2 afternoon.
Full moon 23 day 47 min. past 8 night.
Last quar. 31 day 38 min. past 10 night.

Gr.	Gr.	M	W	Plan. aspects &c.	☉ pl.	☽ pl.	☉ r. & s.	P. N
1		1	3	C. *Assiſ.* Boſton, &	21 ♓	*Sagit* 14 6 12 6	11 14	
	40	2	4	♄ 16 gr. ♋ (C. *Plim*	22 54	26 6 11 6	11 11	
	47	3	5	County C. *Hartford.*	23 54	*Capr.* 8 6 10 6	11 7	
	33	4	6	(☌☉☿	24 54	20 6 8 6	11 03	
	40	5	7	♀ 9 ♈	25 53	*Aqu.* 2 6 7 6	10 59	
	17	6	1	□☿☽ △☌♀	26 54	15 6 5 6	10 56	
10	—	7	2		27 53	28 6 4 6	10 52	
	37	8	3	Court *Fairfield.*	28 52	*Piſces* 11 6 2 6	10 48	
	50	9	4	☌ 9 gr. ♏	29 52	25 6 1 6	10 45	
	52	10	5		00 ♈	*Aries* 9 6 00 6	10 41	
	50	11	6	*Venus* 16 ♉	1 50	23 5 59 7	10 37	
	44	12	7	☿ 11 ♈	2 50	*Taur.* 8 5 57 7	10 33	
	7	13	1	☌☽	3 49	22 5 56 7	10 30	
	7	14	2	☌♃☽	4 48	*Gemi* 6 5 55 7	10 26	
	15	15	3	Lun. Perig.	5 47	20 5 53 7	10 23	
	50	16	4		6 47	*Canc.* 5 5 52 7	10 20	
	10	17	5	☌♄☽	7 46	19 5 50 7	10 16	
	7	18	6	1676. *In this moneth*	8 45	*Leo.* 2 5 48 7	10 12	
0	0	19	7	Groton, North-	9 44	16 5 46 7	10 9	
	9	20	1	hampton (☌☌☽)	10 43	29 5 44 7	10 5	
	12	21	2	warwick, Malbo-	11 42	*Virg.* 13 5 43 7	10 1	
	20	22	3	rough *and* Reho-	12 41	26 5 41 7	9 58	
	14	23	4	both *assaulted by*	13 40	*Libra* 9 5 40 7	9 54	
	40	24	5	*Indians.*	14 39	22 5 39 7	9 51	
	30	25	6		15 37	*Scor.* 4 5 38 7	9 48	
	20	26	7	□♄☉	16 36	16 5 37 7	9 44	
		27	1		17 35	29 5 36 7	9 40	
27	20	28	2	☌ Jup.☽	18 34	*Sagit* 10 5 34 7	9 37	
	30	29	3	C. *Ipſw.* & *North-*	19 32	22 5 33 7	9 33	
17	—	30	4	*(hampton.*	20 31	*Capr.* 4 5 32 7	9 29	
	20	31	5		21 30	16 5 30 7	9 25	

April hath 30 dayes.

New moon 8 day 26 min past 6 morn.
First quar. 14 day 47 past 10 night.
Full moon 22 day 52 min. past 11 noon.
Last quar. 30 day 57 min. past 2 afternoon.

M	W	*Plan. Aspects &c.*	☉ pl.	☽ pl.		☉ r. & s.		P. N.
1	6	*Saturn* 16 gr. ♑	22	♈	*Capr.* 28	5 28	7	9 21
2	7	*Jupiter* 13 ♊	23	27	*Aqu.* 10	5 27	7	9 17
3	1	*Mars* 5 ♍ ☌ *stat-*	24	26	23	5 26	7	9 13
4	2	♂☌☽	25	24	*Pisces* 06	5 24	7	9 09
5	3	Court Cambridge.	26	23	19	5 23	7	9 06
6	4		27	21	*Aries* 03	5 22	7	9 02
7	5	♂♃☿	28	19	17	5 20	7	8 58
8	6	*Venus* 19 gr. ♊	29	18	*Taur* 02	5 18	7	8 55
9	7	*Mercury* 12 ☌ ♂☿	0	♉	16	5 17	7	8 51
10	1	♂♃☿	1	14	*Gem.* 01	5 16	7	8 47
11	2		2	13	16	5 15	7	8 43
12	3	C. *Salisbury*	3	11	*Canc.* 01	5 14	7	8 39
13	4	*Moon* Perige	4	9	15	5 13	7	8 34
14	5	(☌♄	5	7	*Leo* 00	5 11	7	8 31
15	6	△♂☉	6	6	13	5 10	7	8 28
16	7		7	4	27	5 09	7	8 24
17	1	♂☌☽	8	2	*Virgo* 09	5 07	7	8 21
18	2		9	0	23	5 06	7	8 17
19	3		9	58	*Libra* 05	5 04	7	8 14
20	4	□☌✶♃	10	56	18	5 03	7	8 10
21	5	1676 18. *Sudbury* as-	11	54	*Scor.* 00	5 02	7	8 06
22	6	*saulted.*	12	52	13	5 01	7	8 02
23	7		13	50	25	5 00	7	7 58
24	1	*Venus* 0 gr. ♑	14	48	*Sagit.* 07	4 59	8	7 54
25	2	Moon Apog	15	45	19	4 57	8	7 51
26	3	C. Court *Boston.*	16	43	*Capr.* 00	4 56	8	7 47
27	4	✶☿☿ & of ♄☉	17	41	12	4 55	8	7 43
28	5		18	39	24	4 54	8	7 40
29	6		19	37	*Aqu.* 06	4 53	8	7 36
30	7	△♃ Lun.	20	34	19	4 52	8	7 32

May hath 31 Dayes.

New moon 7 day 34 min. past 2 afternoon.
First quar. 14 day 10 min. past 5 morn.
Full moon 22 day 21 min. past 3 morn.
Last quar. 30 day 4 min. past 4 morning.

M	W	Plan. aspects &c.	☉ pl.	☽ pl.	☉ r. & s.	P.N
1	1		21 ♉	*Pisces* 1	4 51 8	7 28
2	2	☌♂☽ Lun ☊	22 30	14	4 50 8	7 24
3	3	♄ 19 gr ♋ ✶☉☽	23 27	27	4 49 8	7 20
4	4	♃ 19 ♊	24 25	*Aries* 11	4 48 8	7 16
5	5	♂ 10 ♌ ☌♂	25 23	25	4 47 8	7 12
6	6	☿ ☌ ♋	26 20	*Taur.* 10	4 46 8	7 08
7	7	*Mercury* 2 ♉ *and*	27 18	25	4 45 8	7 04
8	1	*visible for several*	28 15	*Gemi* 10	4 44 8	7 00
9	2	*mornings about this*	29 13	25	4 43 8	6 56
10	3	*time.*	00 ♊	*Canc.* 10	4 42 8	6 52
11	4	C. *Election* Boston.	1 8	25	4 41 8	6 48
12	5	C. Elect. *Hartford.*	2 5	*Leo.* 9	4 40 8	6 44
13	6		3 2	23	4 39 8	6 40
14	7	☌☌☽	4 00	*Vir.* 7	4 39 8	6 36
15	1	1676. *Bridgwater,*	4 57	20	4 38 8	6 32
16	2	*Plimouth* ♋	5 55	*Libra* 3	4 37 8	6 28
17	3	*Hatfield in this*	6 52	15	4 36 8	6 24
18	4	*month assaulted.*	7 49	27	4 35 8	6 20
19	5	△♂☿ ☌☿☽	8 47	*Scor.* 10	4 34 8	6 16
20	6		9 44	22	4 33 8	6 12
21	7	*Mer.* 17 ♉	10 41	*Sagit* 4	4 33 8	6 08
22	1		11 39	16	4 32 8	6 04
23	2	✶♄☿	12 36	27	4 31 8	6 00
24	3	☽ Apoge.	13 33	*Capr.* 9	4 31 8	5 56
25	4	☌♄☽ & ☌☽	14 30	21	4 30 8	5 52
26	5		15 27	*Aqu.* 3	4 30 8	5 48
27	6		16 25	15	4 29 8	5 44
28	7	*Venus stationary.*	17 22	27	4 29 8	5 40
29	1		18 19	*Pisces* 10	4 28 8	5 36
30	2	□♂☉	19 16	23	4 28 8	5 31
31	3	C. Assist. Hartford.	20 13	*Aries* 5	4 28 8	5 27

June hath 30 dayes.

New moon 5 day 30 min past 8 night.
First quar. 12 day 17 min. past 3 afternoon
Full moon 20 day 8 min. past 6 afternoon.
Last quar. 28 day 47 min. past 1 afternoon.

M	W	*Plan. Aspects &c.*	☉ pl.	☽ pl.		☉ r. & s.			P.N
1	4	*Saturn* 22 gr. ♋	21	♊	*Aries* 20	4	28	8	5 23
2	5	*Jupiter* 26 ♊	22	8	*Taur.* 4	4	28	8	5 20
3	6	*Mars* 21 ♍	23	5	18	4	27	8	5 15
4	7	☿ 17 ♊ ☌☿☽	24	2	*Gem.* 3	4	27	8	5 10
5	1		24	59	18	4	27	8	5 06
6	2	Artil. Elect. *Boston.*	25	56	*Canc.* 3	4	27	8	5 02
7	3	C. Elect. *Plimouth.* &	26	53	18	4	26	8	4 58
8	4	C. *N-hav.* (C. *N Lond*	27	50	*Leo* 3	4	26	8	4 54
9	5	☌☉♃	28	47	18	4	26	8	4 50
10	6		29	44	*Virgo* 2	4	26	8	4 46
11	7	☽☊	0	♋	16	4	26	8	4 42
12	1	□☌☿	1	39	29	4	26	8	4 38
13	2	☌♃☿	2	36	*Libra* 12	4	26	8	4 35
14	3	Court *Charlstown.*	3	33	24	4	26	8	4 30
15	4		4	30	*Scor.* 7	4	26	8	4 25
16	5	1676. *Hadly* assault.	5	27	19	4	26	8	4 20
17	6	Terra Aphelion.	6	24	*Sagit.* 1	4	27	8	4 17
18	7	☌☉☿☿	7	21	13	4	27	8	4 13
19	1	Lun Apoge.	8	18	24	4	27	8	4 09
20	2	☌☿☽ & of ☿☽	9	15	*Capr.* 7	4	27	8	4 04
21	3	1675. Indian War	10	12	18	4	28	8	4 00
22	4	began in *Plimouth*	11	9	*Aqu.* 00	4	28	8	3 56
23	5	Colony.	12	6	12	4	28	8	3 52
24	6		13	3	24	4	29	8	3 48
25	7		14	♌	*Pisces* 7	4	29	8	3 44
26	1	☽♍	14	57	20	4	29	8	3 40
27	2	☌☌☽ ☌♄☿	15	54	*Aries* 2	4	30	8	3 36
28	3	Court *Salem.*	16	52	15	4	30	8	3 32
29	4		17	49	29	4	31	8	3 28
30	5		18	46	*Taur.* 13	4	32	8	3 23

July hath 31 dayes.

New moon 5 day 4 min. paſt 5 morning.
Firſt quar. 12 day 26 min. paſt 1 morn.
Full moon 20 day 43 min. paſt 1 morn.
Laſt quar. 27 day 48 min. paſt 9 night.

M.w.	Plan.	Aſpect, &c.	☉ pl.	☽ pl.	☉ r. & ſ.	P.N.
1	6					
2	7					
3	1	☌♃ ☽ ☌♀ ☽				
4	2	Artil. Elect. *Salem*				
5	3	Court *Plimouth*, &				
6	4	☽ ☌♄				
7	5					
8	6	☌♄☉				
9	7	Jup. 4 gr. ♋				
10	1					
11	2	1676. *Taunton aſ-*				
12	3	Mars 12 ♑ *ſaulted*				
13	4	Venus 29 ♋				
14	5	Mercury 25 ♌				
15	6	☊ 14 ♍				
16	7					
17	1	☌♃ ☽ ☌♀ ☽				
18	2	Lun apoge				
19	3	☌♄ ☽				
20	4					
21	5					
22	6	☌☿ ☽ ☽☊				
23	7					
24	1	□♄ □♀ ☽				
25	2					
26	3	County C. *Boſton.*				
27	4					
28	5	*Venus* 4 gr. ♋				
29	6	*Merc.* 13 ♍ vil.				
30	7					
31	1	☌♃ ☽ & of ☌♀ ☽				

19	♋	*Taur.*	27	4	32	8	3 19
20	40	*Gemi*	12	4	32	8	3 15
21	37		28	4	33	8	3 11
22	34	*Canc.*	12	4	34	8	3 7
23	31		27	4	35	8	3 3
24	28	*Leo.*	12	4	36	8	2 59
25	26		27	4	36	8	2 55
26	23	*Virg.*	11	4	37	8	2 51
27	20		25	4	38	8	2 47
28	17	*Libra*	8	4	39	8	2 43
29	14		21	4	40	8	2 39
0	♏	*Scorp*	3	4	41	8	2 35
1	9		15	4	42	8	2 31
2	6		27	4	43	8	2 27
3	3	*Sagit*	9	4	44	8	2 23
4	1		21	4	45	8	2 19
4	58	*Capr.*	3	4	46	8	2 15
5	55		15	4	47	8	2 11
6	53		27	4	48	8	2 7
7	50	*Aqu.*	9	4	46	8	2 4
8	47		21	4	50	8	1 59
9	45	*Piſc.*	4	4	51	8	1 55
10	42		16	4	52	8	1 51
11	40		29	4	53	8	1 47
12	37	*Aries*	12	4	54	8	1 44
13	34		26	4	55	8	1 40
14	32	*Taur.*	9	4	56	8	1 39
15	29		23	4	57	8	1 32
16	27	*Gemi*	7	4	58	8	1 28
17	24		21	4	59	8	1 24
18	22	*Canc.*	6	5	01	7	1 21

August hath 31 dayes.

New moon 3 day 20 min. past noon.
First quar. 10 day 26 min. past 9 night.
Full moon 18 day 43 min. past 9 night.
Last quar. 26 day 30 min. past 3 morn.

M.	w.	Plan Aspect,&c.	☉ pl.	☽ pl.	☉ r.& s.	P.N.
1	2		19 ♌	*Canc.* 21	5 2 7	1 17
2	3	♄ og r. ♌	20 17	*Leo.* 05	5 3 7	1 13
3	4	♃ ☍ ♋	21 15	20	5 5 7	1 09
4	5	Mars 26 ♎	22 12	*Virg.* 4	5 6 7	1 05
5	6	Venus 9 ♋ ☌ ☿ ☽	23 10	19	5 7 7	1 02
6	7		24 08	*Libra* 3	5 8 7	12 58
7	1	☌ ♃ ♀	25 06	16	5 9 7	12 54
8	2	1679 *Boston Conflag.*	26 03	28	5 11 7	12 51
9	3	Commencement.	27 01	*Scorp* 11	5 12 7	12 47
10	4		27 59	23	5 14 7	12 44
11	5		28 57	*Sagit* 6	5 15 7	12 40
12	6	1676. *Philip* of	29 55	17	5 17 7	12 36
13	7	*Mount-hope* slain.	00 ♍	29	5 18 7	12 32
14	1	☌ ♃ ☌ ♀ □ ♄ ☌	01 51	*Capr.* 11	5 19 7	12 28
15	2		02 48	23	5 20 7	12 25
16	3	Lun apoge	03 46	*Aqu.* 05	5 22 7	12 21
17	4		04 44	17	5 24 7	12 18
18	5		05 43	*Pisc.* 00	5 25 7	12 14
19	6	☌ ☽ ☿	06 41	13	5 27 7	12 10
20	7		07 39	26	5 28 7	12 07
21	1	1675. 2. *Quabaog*	08 37	*Aries* 9	5 29 7	12 03
22	2	destroyed by the Ind	09 35	23	5 30 7	12 00
23	3	△ ☉ ☽ ☌ ☌ ☽	10 33	*Taur.* 7	5 31 7	11 56
24	4	*Venus* 25 ♋	11 31	20	5 32 7	11 52
25	5	*Merc.* 9 ♍	12 30	*Gemi* 4	5 34 7	11 49
26	6	✶ ☉ ♃	13 28	17	5 35 7	11 45
27	7		14 26	*Canc.* 01	5 37 7	11 42
28	1	☌ ♃ ☽	15 24	16	5 39 7	11 38
29	2	☌ ♄ ☌ ♀ ☽	16 25	*Leo.* 00	5 41 7	11 34
30	3		17 22	15	5 42 7	11 30
31	4	Lun Perige	18 20	29	5 43 7	11 26

September hath 30 dayes.

New moon 1 day 6 min. paſt 10 night.
Firſt quar. 9 day 32 min paſt 3 afternoon.
Full moon 17 day 28 min. paſt 11 noon.
Laſt quar. 24 day 26 min paſt 8 morning.

M.	VV.	Planets aſpects, &c. ☉ pl. ☽ pl.	☉ r. & ſ.	P. N.
1	5	C. Harford. ☌ ♄♀	19 ♍ *Virg.* 13	5 44 7 11 22
2	6	(& ☉ ecl.	20 17 28	5 45 7 11 18
3	7	△♃♂	21 16 *Libra* 11	5 47 7 11 14
4	1	1675. 1. *Deerfield*	22 14 24	5 49 7 11 10
5	2	laid waſte.	23 13 *Scor.* 7	5 51 7 11 06
6	3	C. Aſſiſt. *Boſton.* &	24 12 19	5 53 7 11 03
7	4	(☌ ♂☽)	25 10 *Sagit* 2	5 55 7 10 59
8	5	△♃	26 9 13	5 56 7 10 55
9	6		27 8 26	5 58 7 10 51
10	7	Luna apoge.	28 7 *Capr.* 7	5 59 7 10 48
11	1	☌ ♄☽	29 6 19	5 59 7 10 45
12	2	☌♀ Lun.	00 ♎ *Aqua.* 1	6 00 6 10 41
13	3	Saturn 4 gr. ♑	01 3 13	6 02 6 10 37
14	4	Jup. 17 ♋	02 2 25	6 03 6 10 33
15	5	Mars 24 ♏	03 1 *Piſces* 8	6 05 6 10 30
16	6	Venus 20 ♑	04 0 22	6 07 6 10 27
17	7	Mercury 18 ♍	04 59 *Aries* 5	6 09 6 10 24
18	1	☊ 11 ♍	05 58 18	6 10 6 10 20
19	2		06 58 *Taur.* 2	6 12 6 10 17
20	3	Court Newlondon	07 57 16	6 13 6 10 14
21	4	☌ ♂	08 56 *Gemi.* 00	6 15 6 10 10
22	5	△☉☽	09 55 14	6 16 6 10 07
23	6		10 55 27	6 17 6 10 04
24	7	☌ Jov. Lun.	11 54 *Canc.* 13	6 18 6 10 00
25	1	Moon *Perige*	12 54 27	6 19 6 9 57
26	2		13 53 *Leo.* 11	6 20 6 9 54
27	3	C. Ipſw. & Springf.	14 53 25	6 21 6 9 50
28	4	Lun ☊ □♂♀	15 52 *Virgo* 8	6 23 6 9 46
29	5		16 52 22	6 25 6 9 42
30	6	☌♀☽	17 51 *Libra* 6	6 26 6 9 38

October hath 31 dayes.

New moon 1 day 31 min. past 10 beforenoon.
First quar. 9 day 43 min. past 10 beforenoon.
Full moon 16 day 27 min. past 11 night.
Last quarter 23 day 23 min. past 3 afternoon.
New moon 31 day 6 min. past 2 morn.

M.	VV.	Planets asp. &c.	☉ pl.	☽ pl.		☉ r. & s.		P.	N
1	7	☌☿☽ □♃☉	18	♎	*Libra*	19	6 27	6	9 34
2	1	△♄☌	19	50		2	6 29	6	9 30
3	2		20	50	*Scorp*	15	6 30	6	9 27
4	3	Court Cambridge.	21	49		27	6 31	6	9 23
5	4	☌☌☽ ☌☿☉	22	49		10	6 32	6	9 20
6	5		23	49	*Sagit*	22	6 34	6	9 16
7	6		24	49		3	6 35	6	9 12
8	7	Luna apoge.	25	48	*Capr.*	15	6 37	6	9 8
9	1	☌♃☽	26	48		27	6 39	6	9 4
10	2		27	48	*Aqu.*	9	6 40	6	8 1
11	3	C. Assist. *Hartford.*	28	48		21	6 41	6	8 57
12	4	☽☍☿	29	48		4	6 42	9	8 53
13	5	☌♀☽ ✶♃♀	00	♏	*Pisces*	17	6 43	6	8 50
14	6		1	48		29	6 44	6	8 46
15	7	Saturn 6 gr. ♑	2	48	*Aries*	13	6 45	6	8 42
16	1	Jupiter 20 ♋	3	48		27	6 37	6	8 38
17	2	Mars 17 ♐	4	48		13	6 48	6	8 34
18	3	Venus 26 ♍	5	49	*Taur.*	25	6 49	6	8 30
19	4	Mercury 29 ♒	6	49		10	6 50	6	8 26
20	5	☌☌☽	7	49	*Gemi*	25	6 51	6	8 22
21	6		8	50		9	6 53	6	8 18
22	7	☌♃☽ Moon *Perige*	9	50	*Canc.*	23	6 54	6	8 14
23	1	☌♄☽	10	50		8	6 56	6	8 10
24	2		11	51	*Leo.*	21	6 57	6	8 6
25	3	Court *Boston* & *Pli-*	12	51		5	6 59	6	8 3
26	4	*(mouth.*	13	52	*Virgo*	19	7 00	5	8 00
27	5		14	52		2	7 1	5	7 56
28	6	Venus 8 ♎	15	52	*Libra*	15	7 2	5	7 52
29	7	Mercury 1 ♐	16	53		28	7 3	5	7 48
30	1	□♄☽	17	53	*Scorp*	11	7 5	5	7 44
31	2		18	54		23	7 7	5	7 39

November hath 30 dayes.

First quar. 8 day 2 min past 6 morn.
Full moon 15 day 32 min. past noon.
Last quar. 22 day 16 min past 1 morning.
New moon 29 day 19 min. past 8 night.

M.	VV.	Planets aspects, &c.	☉ pl.	☽ pl.	☉ r. & s.	P. N.
1	3	Court *Fairfield*	19 m	*Sagit* 6	7 8	5 7 35
2	4		20 55	18	7 9	5 7 31
3	5	☌♂☽ the ☉ in ♌	21 56	*Capr.* 0	7 10	5 7 27
4	6	to the *Pleiades* is	22 57	12	7 11	5 7 22
5	7	thought to make	23 57	24	7 12	5 7 18
6	1	these dayes tem-	24 58	*Aqua* 5	7 13	5 7 14
7	2	pestuous.	25 59	17	7 14	5 7 10
8	3		26 59	29	7 15	5 7 5
9	4	Court *Newhaven.*	28 00	*Pisces* 11	7 16	5 7 1
10	5	Saturn 7 gr. ♑	29 1	24	7 17	5 6 57
11	6	Jup. 20 ♋	00 ♈	*Aries* 7	7 18	5 6 52
12	7	Mars 7 ♍ ☌☿☽	01 3	20	7 19	5 6 48
13	1	Venus 27 ♎	02 4	*Taur.* 5	7 20	5 6 44
14	2	Mercury 23 ♈	03 5	19	7 20	5 6 40
15	3		04 6	*Gemi.* 3	7 21	5 6 35
16	4		05 7	19	7 22	5 6 31
17	5	☌♂☽ & of ☿☽	06 8	*Canc.* 4	7 23	5 6 27
18	6	☌♃☽ △☍☉	07 9	19	7 23	5 6 23
19	7		08 10	*Leo.* 4	7 24	5 6 19
20	1		09 11	18	7 25	5 6 14
21	2	△☿☽ □☍☿	10 12	*Virgo* 2	7 25	5 6 10
22	3		11 13	16	7 26	5 6 6
23	4		12 14	26	7 27	5 6 2
24	5	*Venus* 11 ♎	13 15	*Libra* 12	7 27	5 5 58
25	6	☿ 2 ♍ & stationary	14 16	28	7 28	5 5 53
26	7		15 17	*Scor.* 8	7 29	5 5 49
27	1	1676. a great Fire	16 18	20	7 29	5 5 45
28	2	in *Boston.* ☌♃♂	17 20	*Sagit* 2	7 30	5 5 40
29	3	Court *Salem.*	18 21	14	7 30	5 5 36
30	4		19 22	26	7 31	5 5 31

December hath 31 dayes.

First quar. 7 day 59 min. past 11 night.
Full moon 14 day 15 min. past 9 night.
Last quarter 21 day 31 min. past 3 afternoon.
New moon 29 day 49 min. past 3 afternoon.

M.	VV.	Planets asp. &c.	☉ pl.	☽ pl.	☉ r. & s.	P.	N
1	5	Lun apoge. △♃♀	20 ♐	*Capr.* 8	7 31	5	5 27
2	6	☌♃ ☌♂	21 26	20	7 32	5	5 22
3	7	☌♄☽	22 27	*Aqu.* 2	7 32	5	5 18
4	1		23 28	13	7 33	5	5 14
5	2		24 30	25	7 33	5	5 08
6	3	♄ 6 gr. ♌	25 31	*Pisces* 8	7 33	5	5 03
7	4	Jupiter 18 ♋	26 32	20	7 34	5	4 59
8	5	Mars 27 ♍	27 33	*Aries* 3	7 34	5	4 54
9	6	Venus 29 ♍	28 35	16	7 34	5	4 50
10	7	shorteſt day.	29 36	29	7 34	5	4 46
11	1	Merc. 18 ♐	00 ♈	*Taur.* 13	7 34	5	4 42
12	2	☊ 6 ♍ ☌♀☽	1 39	27	7 34	5	4 37
13	3	☌☿☽	2 40	*Gemi* 12	7 34	5	4 32
14	4	△♄ Venus	3 41	27	7 34	5	4 28
15	5	☌♃☽	4 42	*Canc.* 12	7 34	5	4 23
16	6	☽ perige.	5 43	27	7 34	5	4 19
17	7	☌♄☽	6 45	*Leo.* 13	7 33	5	4 14
18	1	Mercury ſtat.	7 46	27	7 33	5	4 10
19	2		8 47	*Virgo* 12	7 33	5	4 6
20	3	C. Charlſtown.	9 48	25	7 32	5	4 1
21	4	1675. *Die* 19 *Cano-*	10 50	*Libra* 9	7 32	5	3 57
22	5	*nicus Fort taken by*	11 51	22	7 31	5	3 52
23	6	*the Engliſh.*	12 52	*Scorp* 5	7 31	5	3 48
24	7	Venus 18 gr. ♐	13 54	18	7 30	5	3 43
25	1	Mercury 21 ♐	14 55	29	7 29	5	3 39
26	2	☌ ☉♃	15 56	*Sagit.* 11	7 29	5	3 34
27	3	☌♀☿☽	16 58	23	7 28	5	3 30
28	4	☌ Jov. Lun.	18 0	*Capr.* 5	7 28	5	3 25
29	5		19 0	18	7 27	5	3 21
30	6	Lun Apoge	20 1	20	7 27	5	3 16
31	7	☌☌☽	21 2	*Aqu.* 11	7 26	5	3 12

January hath 31 dayes.

First quar. 6 day 45 min. past 1 afternoon.
Full moon 13 day 35 min. past 7 morn.
Last quar. 20 day 43 min past 6 morning.
New moon 28 day 55 min. past 10 beforenoon.

m.	w.	Planets asp &c.	☉ pl.	☽ pl.	☉ r. & s.		P. N.
1	1		22 ♈	23	7	25 5	3 07
2	2	✶♀ ☽ Lun ♃.	23 5 *Pisc.*	5	7	25 5	3 03
3	3	♄ 4 gr. ♌ & retr.	24 6	17	7	24 5	2 59
4	4	♅ 14 ♐ & retr	25 7	29	7	23 5	2 54
5	5	♂ 19 ♒	26 8 *Arie.*	12	7	22 5	2 50
6	6		27 9	26	7	21 5	2 46
7	7		28 10 *Taur*	8	7	21 5	2 42
8	1	☌ & ☿☌ ♈	29 11	22	7	20 5	2 38
9	2	△☉☽ ✶♄	00 ♊ *Gem.*	6	7	19 5	2 33
10	3		1 14	21	7	18 5	2 29
11	4	☌♅ ☌♀☽	2 15 *Canc.*	6	7	17 5	2 25
12	5	☌♄☉	3 16	21	7	16 5	2 21
13	6	☌♅♀ & ♅♀	4 17 *Leo.*	5	7	15 5	2 17
14	7		5 18	21	7	14 5	2 13
15	1	☽☊	6 20 *Virg.*	5	7	13 5	2 09
16	2		7 21	20	7	12 5	2 05
17	3	△☉☽ ✶♄	8 22 *Libra*	4	7	11 5	2 01
18	4	□♅ □♀ □☿	9 23	18	7	10 5	1 57
19	5	*Venus* 22 gr. ♈	10 24 *Scorp*	1	7	9 5	1 53
20	6	*Merc.* 25 ♈	11 25	14	7	8 5	1 49
21	7		12 25	26	7	7 5	1 45
22	1	✶☉☽ □♂☽	13 26 *Sagit.*	7	7	6 5	1 41
23			14 27	20	7	5 5	1 36
24	3		15 28 *Capr.*	2	7	4 5	1 31
25	4	☌♅☽ ☌♄☿	16 29	14	7	3 5	1 27
26	5	*The long Mar*	17 30	26	7	2 5	1 23
27	6	☌♄ ☌♀☽	18 31 *Aqu.*	8	7	1 5	1 19
28	7	Sun Eclipsed *vis.*	19 31	20	6	59 6	1 15
29	1	☌♂☽ ☌♄♀	20 32 *Pisces*	1	6	57 6	1 11
30	2		21 33	14	6	56 6	1 07
31	3	C. Court Boston.	22 33	26	6	54 6	1 03

February hath 28 dayes.

First quar. 5 day 21 min. past 4 morning.
Full moon 11 day 48 min. past 6 night.
Last quar. 19 day 00 min. past 1 morning.
New moon 27 day 11 min. past 4 morn.

m.	w.	Planets asp. &c.	☉ pl.	☽ pl.	☉ r. & s.	P. N.
1	4	Saturn 2 gr. ♑	23 ♒	*Arie.* 9	6 52 6	01 00
2	5	☌ ☿ ☍ ♃ △ ♄ ☌	24 34	22	6 50 6	12 56
3	6	Mars ♓	25 35	*Taur* 05	6 48 6	12 52
4	7	*Venus* ☌ ♒	26 36	18	6 48 6	12 48
5	1	Mercury ☌ ♍	27 36	*Gem.* 02	6 47 6	12 44
6	2		28 37	16	6 46 6	12 40
7	3		29 37	*Canc.* 00	6 44 6	12 36
8	4	☌ ♄ ☽ △ ♂ ☽	00 ♓	15	6 42 6	12 32
9	5	☌ ♄ ☽ ☽ perige	1 38	29	6 40 6	12 28
10	6	1675 *Lancaster burnt*	2 39	*Leo.* 14	6 39 6	12 25
11	7	A total eclipse of the	3 39	29	6 38 6	12 21
12	1	Moon.	4 39	*Virg.* 14	6 37 6	12 17
13	2		5 40	28	6 36 6	12 13
14	3		6 40	*Libra* 12	6 35 6	12 9
15	4	☌ ☉ ☿	7 40	26	6 34 6	12 6
16	5		8 40	*Scorp* 9	6 32 6	12 2
17	6	△ ♄ ☿ □ ☾ ☽	9 41	23	6 31 6	11 58
18	7	△ ☉ ♄	10 41	*Sagit.* 5	6 29 6	11 54
19	1		11 41	17	6 28 6	11 50
20	2		12 41	29	6 27 6	11 47
21	3	1675. *Medfield*	13 41	*Capr.* 10	6 26 6	11 43
22	4	assaulted.	14 41	22	6 24 6	11 40
23	5	☽ Apoge.	15 41	*Aqu.* 4	6 22 6	11 36
24	6		16 41	16	6 20 6	11 32
25	7		17 40	28	6 18 6	11 28
26	1	☌ ☾ ☽ & of ♂ ☿	18 40	*Pisces* 10	6 16 6	11 24
27	2	△ ♄ ☿ △ ♄ ♂	19 40	23	6 14 6	11 21
28	3	☌ ♂ ☽ △ ♃ ☾	20 40	*Aries* 6	6 13 6	11 18

OF COMETS,
Their Motion, Distance & Magnitude.

IT may perhaps be expected that the terrible *Comet* seen this last winter 1680. to us in *New-England*, and (no doubt) to the whole world, should occasion something here to be said concerning the nature and constitution of those wonderful bodyes: but if it be a true (as well as a common) Saying, *Non est in intellectu quod non fuit prius in sensu, Nothing comes to the understanding but what hath first passed the senses*, then it will follow that such things as are far removed from our senses, will also be remote from our understandings: And though it must be confessed that the Age wherein we live hath made many rare discoveryes of such things in the heavens whereof the Ancients were wholly ignorant, as the Ring of ♄, the Satellites of ♃, mountains and valleys in the moon, & thousands of Stars which they never saw &c. so much also concerning Comets of their motion magnitude and distance as may serve to subvert the old fabrick of their fancies, but yet notwithstanding these discoveryes, we are still ignorant what they are, *Quod sint concedimus, sed qualia sint ignoramus*: and whence indeed can we hope that it should be otherwise; when perhaps could we approach them, for a perfect and full view of them, (seeing they are not within the confines of this earths influence or jurisdiction) we could determine nothing thereby but their magnitude, colour and figure; Such therefore as have essayed any physical Discourse concerning Comets, wanting a good foundation to build upon have exceedingly varied in their apprehensions, *Quot homines tot sententiæ*: Nor would these few leaves give me scope so much as to draw up in any order the many Regiments of opinions which every where appear among Authors concerning Comets, much less to give them fair play in their own defence.

We

We may therefore certainly conclude that as yet no man knows concerning Comets whence they are, what they are, for what they come, or whither they goe.

It will therefore be sufficient for me here a little to concern my self with such things only as come under a mathematical Demonstration, as their Motion, Distance, and Magnitude.

1. *Of their Motion.* And here I think no man will deny but that Comets have a real as well as an apparent motion. But though their motion be granted, yet whether that motion be equal or unequal, whether it be in a straight line or a circle, whether in an ellipsis or some irregular curve is not yet determined.

But here is no room for a Debate; and therefore I shall comprize in these three following Positions what (to me) seems most probable to solve their strange appearances, and reconcile their apparent inequality both in motion and magnitude to a regular line and equal motion.

1. That Comets as well as all other heavenly bodyes are in their motions most regular and equal, holding that motion most precisely into which they were once put by the hand of the Creator: for where there is nothing to impede, retard or accelerate a motion, that motion must needs continue the same.

2. That the motion of a Comet with respect to that place in which it nextly and immediately is, is in a straight line, though in respect of us (at least while it continues within the Orb of *Saturn*) it describe a line curve & irregular.

3. That whereas there is a general Law of Gyration or Revolution round the Sun given to all within the sphere of its activity, it must of necessity come to pass, that a Comet (or any other extraneous body) coming within this compass, though it have a particular motion of its own in which it doth equally persist, yet while the general System is circumvolved, the Comet with its straight line must also be translated together with it, in proportion to the motion of that place in which it nextly is.

We

Their magnitude and distance.

We see here upon the earth, that things in their natural tendency either upward or downward, both with respect to the air through which, or the earth to or from which they move, doe describe a right line without receiving any disturbance therein by the annual or diurnal motion of the earth: the like may be seen in the *Satellites* of Jupiter, whose motion round him is not varied at all by his swift course through the Vniverse: For as it is necessary in finding their apparent places in the Ecliptick to consider as well the motion of ♃ and of the earth, as their own proper motion; so likewise in solving the various appearances of a Comet it will be necessary to consider the motion of the Comet, of the earth, and of the the general System in that part through which the Comet is passing.

2. *Their Distance.* While Comets were thought to be generated of Fumes, Vapors, sulphurous Exhalations &c. their distance was esteem'd no greater then the upper Region of the air, and their magnitude not exceeding an hill or mountain: but by late observations their Parallaxes have been found very small if at all sensible: whence it is apparent that they are far beyond the moon; some have thought four times, some ten, some forty times as far distant from the earth as the Moon is.

3. *Of their Magnitude.* Notwithstanding the great difference in the apparent magnitude of Comets, it is commonly thought that there is no real difference in their magnitude, but in their distance only, and so seem least when most remote, and bigger when nearer. Supposing therefore that this Comet in its *Perige* or neareſt approach to the earth was but four times as far distant as the Moon, then was its distance more then eight hundred thousand English miles, the length of its blaze or tail as much as its distance, and its breadth and thickness many thousands of of miles. But these dimentions are thought incredible, & therefore I shall refer the Reader for his better satisfaction to what acconut we may receive of this Comet from other parts of the world: In the mean time take our observations of it here in *N.E.* as followeth,

Observations of a Comet *seen this last Winter* 1680. *and how it appeared at* Boston *in N-E. whose* Long. 315. *gr. and* Latitude 42 gr. 30 min. N.

November the ~~nineteenth~~ eighteenth 1680. at five a clock in the morning this Comet was at *Boston* firſt obſerved, it was near 14 Degrees in *Libra*, and 1 *gr.* 30 *m.* ſouthward of the Ecliptick. The weather being clear ſhewed its Tail to a great length, near 30 gr. but ſo faint that it vaniſhed as ſoon as the day-light appeared.

Novemb. 19. It was judged within a Degree of *Spica Virginis*, directing its courſe to the northward of it about 40 *min.*

After this, ſeveral mornings proved cloudy, till it was covered by the Sun beams, and appeared in the East no more.

We judged it would paſs its ☌ with the ☉ in the beginning of *December*, and therefore ſoon after expected to ſee it in the weſt.

Friday, Decemb. 10. Proved a clear evening after ſeveral preceding cloudy; the Tail of the Comet appeared near 30 gr. above our Horizon, bending to the northward, and paſſing exactly under the Galaxy or Milky-way.

Decemb. 12. Its Blaze or Tail appeared very red and fiery, and extended to a Star in the breaſt of the Swan.

Decemb. 14. Its Head was firſt diſcerned, but ſoon diſappeared, its ſtream remaining for ſome hours after, paſſing to the northward of *Cor Aquilæ*, over-reached a third part of our Hemiſphere.

Decemb. 16. Its appearance was very terrible, for though the head of it was but ſmall, yet its tail aſcended almoſt to our Zenith, growing continually broader from the

head

head, and was brightest on the sides, especially on the south side, the middle of the Tail being considerably darker than either of the sides.

Decemb. 17. 5 *h.* 50. Its distance taken from known stars, made its place 20 *gr.* 6 *min.* ♑, and its latitude 16 *gr.* 25 *m.* N.

Decemb. 18. The southward edge of its tail just touched the northermost star in the Dolphin, and proceeding passed over a star of the 3 *d.* magnitude in the Swans left wing. After this we had no clear evening till

Saturday, Decemb. 25. when its distance taken from known stars (at 6 *h.* 12. *m.*) made its place 24 *gr.* 12 *m.* ♒ Lat. 23 31.

Jan. 1. 6 *h.* 30 *m.* It was judged by its Position among the fixed stars, to be in ♒ 26 *gr.* 45. *min.* & its Lat. 28. 15. The night following at 8 *h* was judged to enter ♈.

Saturday, Jan. 8. This night gave the fairest opportunity of finding its true place, and Parallax also (if it had not been too small for our instrumenrs) by its approach to a fixed star of the 3 *d.* Magnitude in the right shoulder of *Andromeda*: We therefore attended it in its going down for several hours. At 6 *h.* 5 *m.* we found it 28. *m* distant from that star: at 50. *min.* past 6. its distance was 25. *min.* when the two stars in *Andromedaes* shoulder with the Comet made a right angled Triangle, the right angle at the northward star of the two mentioned. At 10 *h.* 5. *min.* The Comet passed by the said star, leaving it 12 *m* southward.

Its visible hourly motion at this time was about 6 *m.* direct, which if compared with its daily motion, we shall find it but little (if at all) retarded by reason of its Parallax, which shews (at least at this time) its vast distance from us; for had it not far exceeded the distance of the moon, its true motion would have far exceeded its visible.

Jan. 9. It was judged to be 19 *gr.* 25 *min.* ♈ and its Latitude 24 23.

Jan. 11. 6 *h.* The Comet was 17 *min.* distant from, and directly over a star of the 6 *th* Magnitude in the snout of

the

the northern Fiſh, The night following, at 6 *h.* 35. *min* it was 46 *min.* northward from the northermoſt ſtar in the Fiſhes mouth.

Ian. 24. 6. *h.* 30 *min.* It was obſerved to be 44 *min.* diſtant from a ſtar of the fifth magnitude in the upper corner of the Triangle, its longitude being 16 *min.* leſs then the longitude of that ſtar.

After this it was ſeen (though but obſcurely) till the 10. of this Inſtant *February*, but is now ſo far exiled that it is beyond the view of a naked eye, but by the help of a good Teleſcope may be for ſome time yet diſcerned.

And thus is this prodigious Spectacle removed, leaving the world in a fearful expectation of what may follow: ſure it is that theſe things are not ſent for nothing, though man cannot ſay particularly for what: They are by moſt thought to be Fore-runners of evil coming upon the World, (though ſome think otherwiſe) as was long ſince obſerved by *Cicero*, *ab ultima antiquitatis memoria notatum eſt Cometas ſemper calamitatum prænuntios eſſe.*

But of theſe things we have lately heard in Publick by a Reverend Divine among us, in a Sermon *occaſioned by this Ominous* Appearance, *ſhewing* That prodigious Sights and Signs in heaven are many times Preſages of great Calamityes coming upon the World; *which at the deſire of many is forthwith to be made publick, to which we may refer our ſelves for the knowledge of what concerns us being under ſuch heavenly Warnings.*

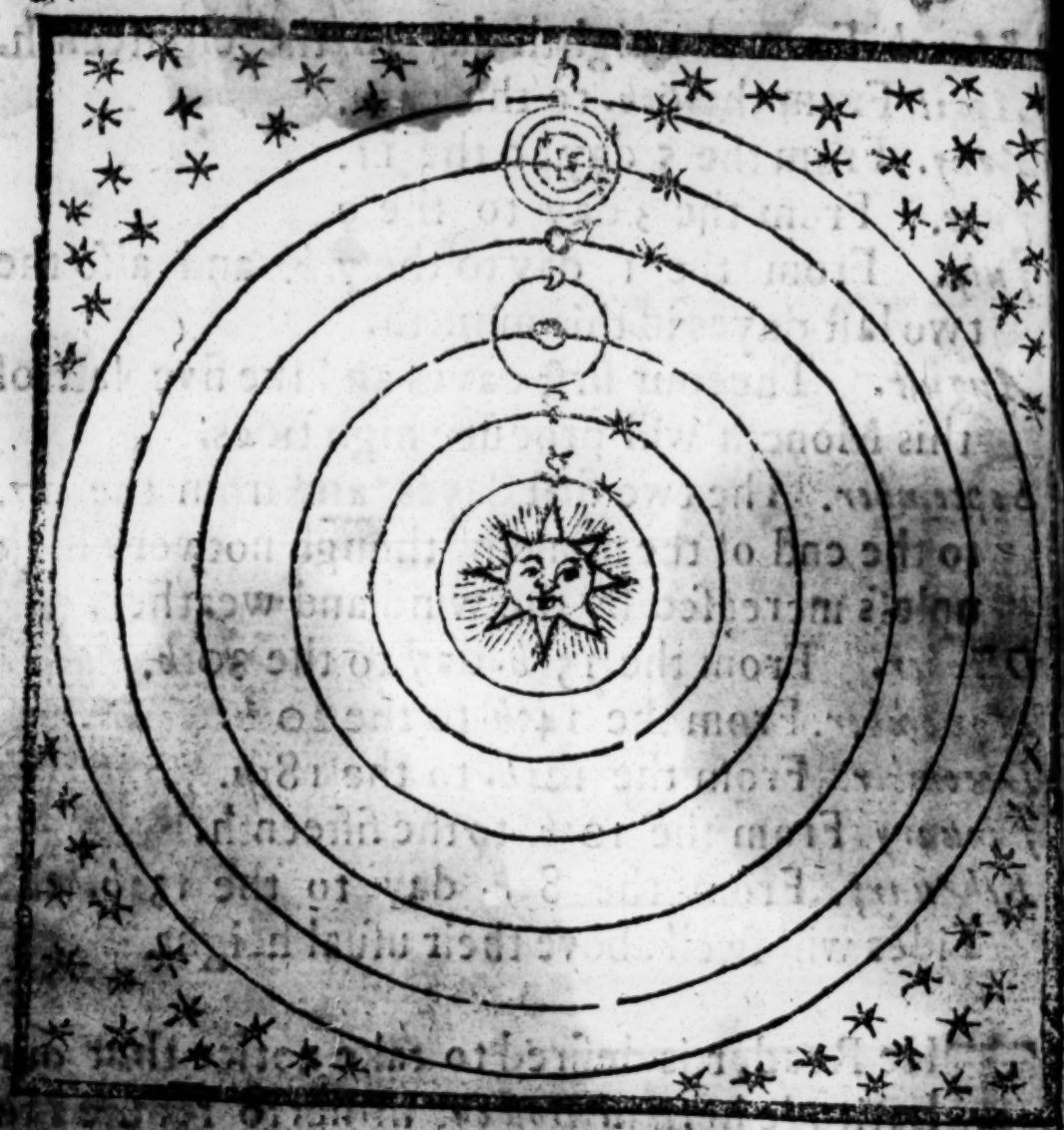
Spring-tides in the Year 1681.

March. From the eighth day to the eighteenth.
April. From the 6*th.* to the 14*th.*
May. From the 5 day to the 11.
June. From the 3 day to the 9.
July. From the 1. day to the 7*th.* and also the two last dayes in this moneth.
August. The four first dayes and the five last of this Moneth will produce high tides.
September. The two first dayes, and from the 17. to the end of the moneth, though not very high unless increased by the wind and weather.
October. From the 15*th.* day to the 30*th.*
November. From the 14*th.* to the 20*th.*
December. From the 12*th.* to the 18*th.*
January. From the 10*th.* to the fifteenth.
February. From the 8*th.* day to the 13*th.* the Tides will swell above their usual height.

THe Reader is desired to take notice that our Latitude here in *Boston*, hitherto reputed to be 42. *gr.* 30. *min.* is by better Observations found not to exceed 42. *gr.* 24. *m.* of which you may expect the certainty by the next opportunity.

ERRATUM.

In the first Page of Observations of the Comet, and the first line, Read November the eighteenth.



Time tryeth Truth Convicting all that ſtrive
Faln Syſtems, dead Chymæraes to revive,
And he hath brought to light by good ſucceſs
The Law which nature never doth tranſgreſs.
Sol keeps his throne, and round about him ſhines
Upon ſix worlds which walk in ſingle lines,
And eight leſs Globes, again encompaſſing
One th' *Earth*, ſome *Jove*, Three *Saturn* with his Ring:
All ſing their Makers Praiſe, and ſhew his power
In due proportion moving every hour.
Thrice happy they that hearing wand'ring wayes
Do duely walk to their Creators praiſe. T. Street.

FINIS.

Bound August 1937



